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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/797,976 | 03/11/2004 | Wolfgang Lashofer | ANDPAT/183/US | 5014 |
| 2543 | 7590 | 06/01/2006 | EXAMINER | |
| ALIX YALE & RISTAS LLP 750 MAIN STREET SUITE 1400 HARTFORD, CT 06103 | | | KINNEY, ANNA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1731 | |

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,976

Applicant(s)

LASHOFER ET AL.

Examiner

Anna Kinney

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gordy (U.S. Patent 4,259,147).

With respect to claim 1, Gordy discloses a process for refining (col. 18, lines 46-50) lignocellulose raw materials (col. 23, lines 22-25) comprising the step of: discharging the lignocellulose raw materials from a digester; dewatering the lignocellulose raw materials (col. 5, lines 48-54); extracting condensate produced in the

dewatering step (col. 5, lines 48-58); and refining the dewatered lignocellulose raw materials in a refiner (Fig. 1, "Defibrator and/or Refiner").

With respect to claim 2, Gordy discloses that the lignocellulose raw materials are dewatered by compacting (col. 5, lines 48-50).

With respect to claim 3, Gordy discloses producing glue from the extracted condensate (col. 6, lines 23-26).

With respect to claim 5, Gordy discloses a system for refining (col. 18, lines 46-50) lignocellulose raw materials (col. 23, lines 22-25) comprising: a digester (Fig. 4, item 10'); a refiner (Fig. 1, "Defibrator and/or Refiner"); a connection device connecting the digester to the refiner (col. 15, lines 25-28); a dewatering device provided in the connection device (col. 5, lines 48-54), the dewatering device separating the lignocellulose raw materials into dewatered lignocellulose raw material and water in the form of condensate (col. 5, lines 50-58); a discharge pipe for discharging the condensate from the system (Fig. 1, represented by arrows labeled "lignin solution" and "lignin concentrate", followed by "to resin plant").

With respect to claim 6, Gordy discloses that the dewatering device is a compaction device (col. 5, lines 48-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordy, as applied in the 35 USC 102(b) rejection of claims 1, 2, and 5, above, and further in view of Boija (GB 658,104).

With respect to claims 4, 7, and 8, Gordy discloses that the lignocellulose raw materials are compacted by a plug screw after the digester (col. 5, lines 48-54), but does not disclose the location of the device.

With respect to claims 4 and 7, Boija discloses that the plug screw, (the dewatering device for claim 7), is located at the discharge (the outlet for claim 7) of the digester (pg. 2, col. 1, lines 44-54).

With respect to claim 8, Boija discloses that the dewatering device (Fig. 1, item 3) is disposed directly below the outlet of the digester (Fig. 1, item 7).

With respect to claim 9, Gordy discloses that the dewatering device is a screw, as applied in the 102(b) rejection to claim 5, above.

Boija discloses that the connection device defines a transport direction (pg. 2, col. 1, lines 4-54), and further discloses a screw having a diminishing cross section in the transport direction (pg. 2, col. 1, lines 54-64).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply a screw at the outlet of a digester with a diminishing cross-section in the transport direction as described by Boija in the pulping and dewatering process and apparatus of Gordy to obtain the invention as specified in claims 4 and 7-9.

The motivation would have been to compress the chips to a plug to check escape of steam (Boija, pg. 2, col. 1, lines 54-64) and to prevent liquor from accompanying the chips (pg. 1, col. 2, lines 68-78).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gordy as applied to claim 5 above, and further in view of Engall (U.S. Patent 4,491,504).

With respect to claim 10, Gordy does not disclose expressly that the system comprises a rotating peeling head.

Engall discloses a system for refining (col. 1, lines 36-40) lignocellulosic raw materials (col. 1, lines 8-18), comprising a digester (col. 7, lines 50-54), a refiner (col. 1, lines 36-40), a dewatering device (e.g., screw feeder, col. 6, lines 28-31), and a conical plug (Fig. 5, and col. 6, lines 41-44), which the Examiner construes to be the equivalent of a peeling head, disposed at a discharge of the dewatering device (Fig. 5). The Examiner construes the shaft extending from the conical plug to indicate that the conical plug rotates.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a conical plug as described by Engall in the digestion and refining apparatus of Gordy to obtain the invention as specified in claim 10.

The motivation would have been to provide a back pressure on the cellulosic material passing through the screw (col. 6, lines 41-44).

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Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. 4,248,662 discloses refining, digesting, and dewatering fibrous material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Kinney whose telephone number is (571) 272-8388. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALK


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700